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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/526,013

10/21/2005

Hiroaki Zaima

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EXAMINER

CHAWAN, SHEELA C

ART UNIT

PAPER NUMBER

2624

NOTIFICATION DATE

DELIVERY MODE

03/23/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary	Application No. 10/526,013	Applicant(s) ZAIMA, HIROAKI	
	Examiner SHEELA C. CHAWAN	Art Unit 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 December 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 23, 24, 25, 27-30, 31- 33, 34-39 is/are pending in the application.
- 4a) Of the above claim(s) 27, 37 and 40 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 23, 24, 25, 27-30, 31- 33, 34-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 February 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>3/31/08, 2/8/08, 2/25/08</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Applicant's amendment filed 11/28/2008 has been entered and made of record.
Claims 1-22 are cancel.
Claims 23- 25, 27-36 and 38-39 are pending in the application.

Election/Restrictions

2. Applicant's election without traverse of Group I claims (23- 25, 27-36 and 38-39) In the reply filed on 12/17/08 is acknowledged.
Claims 26, 37 and 40, are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim.

Information Disclosure Statement

- 3 The information disclosure statement (IDS) submitted on 3/31/08, 2/8/08, 2/25/08, the information disclosure statement is being considered by the examiner.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 27-36 are rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention. Supreme Court precedent¹ and recent Federal

¹ *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972); *Cochrane v. Deener*, 94 U.S. 780, 787-88 (1876).

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Circuit decisions² indicate that **a statutory “process” under 35 U.S.C. 101** must **(1)** be tied to a machine or **(2)** transform underlying subject matter (such as an article or material) to a different state or thing. While the instant claims recite a series of steps or acts to be performed, the claims neither transform underlying subject matter nor are positively tied to another statutory category that accomplishes the claimed method steps, and therefore does not qualify as a statutory process. The recited steps of **“a depth information setting part, output part which outputs figure data where said depth information has been set”** neither transform underlying subject matter nor positively tie to a machine that accomplished the claimed method steps. In order for process to be “tied” to a machine, the structure of a machine should be positively recited in a step or steps significant to the basic inventive concept, and NOT just in association with statements or intended use or purpose, insignificant pre or post solution explicitly, or implicitly.

Appropriate correction is required.

Claim Rejections - 35 USC § 101

5. U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The USPTO “Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility” (Official Gazette notice of 22 November 2005), Annex IV, reads as follows:

Descriptive material can be characterized as either “functional descriptive material” or “nonfunctional descriptive material.” In this context, “functional descriptive material” consists of data structures and computer programs which impart functionality when employed as a computer component. (The

² *In re Bilski*, 88 USPQ2d 1385 (Fed. Cir. 2008).

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definition of "data structure" is "a physical or logical relationship among data elements, designed to support specific data manipulation functions." The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993).) "Nonfunctional descriptive material" includes but is not limited to music, literary works and a compilation or mere arrangement of data.

When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994) (claim to data structure stored on a computer readable medium that increases computer efficiency held statutory) and *Warmerdam*, 33 F.3d at 1360-61, 31 USPQ2d at 1759 (claim to computer having a specific data structure stored in memory held statutory product-by-process claim) with *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory).

In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See *Lowry*, 32 F.3d at 1583-84, 32 USPQ2d at 1035.

Claim(s) 38 and 39 are ejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter as follows. Claim 38 and 39 defines a contents preparation program product for allowing a computer to execute, as recited by claim 38. Claim 39 recites a contents editing program product for allowing a computer to execute a contents editing, embodying functional descriptive material (i.e., a computer program or computer executable code). However, the claim does not define a "computer-readable medium or computer-readable memory" and is thus non-statutory for that reason (i.e., "When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized" – Guidelines Annex IV). The scope of the presently claimed invention encompasses products that are not necessarily computer readable, and thus NOT able to impart any functionality of the recited program. The examiner suggests amending the claim(s) to embody the program on "computer-

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readable medium” or equivalent; assuming the specification does NOT define the computer readable medium as a “signal”, “carrier wave”, or “transmission medium” which are deemed non-statutory (refer to “note” below). Any amendment to the claim should be commensurate with its corresponding disclosure.

Note:

“A transitory, propagating signal ... is not a “process, machine, manufacture, or composition of matter.” Those four categories define the explicit scope and reach of subject matter patentable under 35 U.S.C. § 101; thus, such a signal cannot be patentable subject matter.” (In re Nuijten, 84 USPQ2d 1495 (Fed. Cir. 2007)). Should the full scope of the claim as properly read in light of the disclosure encompass non-statutory subject matter such as a “signal”, the claim as a whole would be non-statutory. Should the applicant’s specification define or exemplify the computer readable medium or memory (or whatever language applicant chooses to recite a computer readable medium equivalent) as statutory tangible products such as a hard drive, ROM, RAM, etc, **as well as** a non-statutory entity such as a “signal”, “carrier wave”, or “transmission medium”, the examiner suggests amending the claim to include the disclosed tangible computer readable storage media, while at the same time excluding the intangible transitory media such as signals, carrier waves, etc.

Merely reciting functional descriptive material as residing on a tangible medium is not sufficient. If the scope of the claimed medium covers media other than “computer readable” media (e.g., “a tangible media”, a “machine-readable media”, etc.), the claim

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remains non-statutory. The full scope of the claimed media (regardless of what words applicant chooses) should not fall outside that of a computer readable medium.

Claim Rejections - 35 USC § 102

6. following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 23, 24, 25, 27-30, 31- 33, 34-39, are rejected under 35 U.S.C. 102(b) as being anticipated by Uwa Nobuaki et al., Document 1: JP, 8-182023, Listed in IDS. (abstract).

Claims 23, 24, 25, 27-30, 31- 33, 34-39, are rejected under 35 U.S.C. 102(b) as being anticipated by Terasaki Hajime et al., Document 2: JP, 8-227464 , Listed in IDS. (abstract).

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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Claims 23, 24, 25, 27-30, 31- 33, 34-39, are rejected under 35 U.S.C. 102(e) as being anticipated by (WO 02/13143 A1, Listed in IDS).

As to claim 23, (WO 02/13143 A1) discloses a contents preparation apparatus comprising:

a depth information setting part which individually sets depth information for a plurality of pieces of two-dimensional figure data (from page 5 line 20 to page 7 line 28 explains the various methods of setting depth information to objects in a 2D image; and (page 10 line 27 to 29 explains image display aspect. Also see figure 3) an output part which outputs figure data where said depth information has been set.

As to claim 24(WO 02/13143 A1 discloses a contents editing apparatus for editing contents where depth information has been set for two-dimensional figure data, comprising:

a display information input part which accepts an input of depth information on the depth to be displayed (display information input for each of the objects in the 3D either manually or semi-automatically or automatically using the computer (page 5 line 17 to page 8 line 28);

a display part which displays only figure data where said accepted depth information has been set (page 12, lines 28-31 once the depth information is set the data are ready to be viewed as a 2D or 3D on a display); and

a depth information changing part which changes depth information on said figure data displayed (page 13, line 2 22 explains the depth information data for 3D image display).

As to claim 25, (WO 02/13143 A1)discloses a contents editing apparatus for editing contents where depth information on the relative relationship of depth between two-dimensional figure data and a predetermined plane that is a reference plane has been set, comprising:

a reference plane depth information setting part which sets depth information for said reference plane(page 9, line 5 to 18 – depth information is set for objects in the scene of a 2D image with several objects and each object is given a layer assignment eg., starting with one object and using it as a reference plane from which other objects are assigned depth references); and a depth editing part which edits depth information that has been set for said figure data in accordance with said depth information that has been set for said reference plane.

As to claim 27, (WO 02/13143 A1) discloses a contents preparation method comprising:

a depth information setting step of individually setting depth information for a plurality of pieces of two-dimensional figure data (contents preparation method is explained fro page 5 line 1 to 28. Depth information for each object is set either manually, semi-automatically or automatically); and an output step of outputting figure data where said depth information has been set (page 10 lines 9 – 29 explains the steps in the creation of left eye and right eye images on a display (outputting the figure data)).

As to claim 28, (WO 02/13143 A1) discloses the contents preparation method according to claim 27, further comprising a conversion step of converting said depth information set in said depth information setting step into deepness information that

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indicates the corresponding deepness, wherein in said output step, said figure data to which said deepness information converted has been added is outputted.(the depth information (deepness) of figures is added (page 6 line 6 to 12), image is outputted to display unit (page 10, line 27 – 29).

As to claim 29, (WO 02/13143 A1) discloses the contents preparation method according to claim 27, further comprising:

a depth information setting display step of displaying said depth information selectable as depth layers information (page 12, line 26-31 and page 13, lines 2-5 explains the depth information selectability); and

a depth information input step of accepting an input of depth information that is to be set for said figure data on the basis of said depth information displayed in said depth information setting display step(page 12, line 27-31 (also figure 4) shows the sequence of steps in assigning depth information for each object in the scene), wherein in said depth information setting step, said depth information accepted is set for said figure data (page 12 line 1-3 once depth information for objects is assigned (set) a stereoscopic image is created (is set for a figure data).

As to claim 30, (WO 02/13143 A1)discloses the contents preparation method according to claim 27, further comprising a figure data selection step of selecting said figure data, wherein in said depth information setting step, said depth information is set for said figure data selected (page 5 line 10-19 each object in a scene is assigned a depth information).

As to claims 31, (WO 02/13143 A1) discloses a contents editing method for editing contents where depth information has been set for two-dimensional figure data, comprising:

a display information input step of accepting an input of depth information on a depth to be displayed (page 13 lines 17-31 a further information is input for a layer of depth);
a display step of displaying only figure data where said depth information accepted has been set (the information is set for the required depth characteristic etc.); and
a changing step of changing said depth information of said figure data displayed (the data is displayed (page 15, lines 23-26).

As to claims 32, (WO 02/13143 A1) discloses the contents editing method according to claim 31, wherein in said display information input step, an input of a depth range that is to be displayed, of said depth information is accepted (the depth information is set (accepted), and in said display step, only figure data is displayed where the depth information that corresponds to said depth range accepted has been set (the display includes the depth information).

As to claim 33, (WO 02/13143 A1) discloses the contents editing method according to claim 31, wherein in said display information input step, said figure data is displayed editable (page 13, lines 19-21 explains the editability).

As to claim 34, (WO 02/13143 A1) discloses a contents editing method for editing contents where depth information on the relative relationship of depth between two-dimensional figure data and a predetermined plane that is a reference plane has been

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set, comprising:

a reference plane depth information setting step of setting depth information for said reference plane, and (page 6, lines 16-17 the reference plane would be the edge of the object closest to the viewer. The depth information would be based on the reference edge of the object);

a depth editing step of editing depth information that has been set in said figure data in accordance with said depth information that has been set for said reference plane (page 6 lines 20-26 editing could be based on the reference plane).

As to claim 35, (WO 02/13143 A1) discloses the contents editing method according to claim 34, wherein in said depth editing step, depth information that has been set for said figure data is changed on the basis of said depth information that has been set for said reference plane while maintaining said relative relationship of depth between said figure data and said reference plane (page 6 lines 20-28, the depth information may be changed to either linear to non-linear or non-linear to linear. Editing of the depth information is based on object movement).

As to claim 36, (WO 02/13143 A1) discloses the contents editing method according to claim 34, further comprising a figure data selection step of selecting said figure data, wherein in said depth editing step, said depth information that has been set for said figure data selected is edited (page 6, lines 14 to 31, explains the depth information editing for figures in a scene).

Regarding claim 38, it is interpreted and thus rejected for the same reasons as applied above in the rejection of claim 23.

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Regarding claim 39, it is interpreted and thus rejected for the same reasons as applied above in the rejection of claim 23.

Other prior art cited

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Mashitani et al., (US. 7, 277,121 B2) discloses stereoscopic image processing and display system.

Thompson (US. 2003/0043145 A1) discloses three dimensional depth cue for selected data.

Snyder et al., (US. 6,326,964 B1) discloses method for sorting 3D object geometry among image chunks for rendering in a layered graphic rendering system.

Berestov (US. 6,862,364 B1) discloses stereo image processing for radiography.

Contact Information

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to SHEELA C. CHAWAN whose telephone number is (571)272-7446. The examiner can normally be reached on 7.30- 5.00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Werner can be reached on 571-272-7401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free)? If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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